

PATENT COOPERATION TREATY

PCT

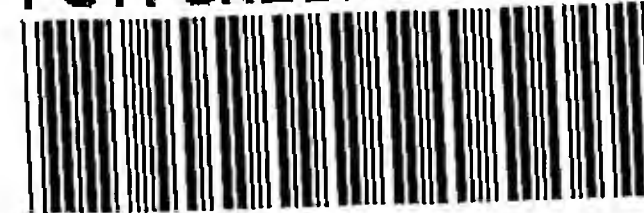
INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)


(PCT Article 36 and Rule 70)

REC'D 25 JUL 2006

PCT Application

PCT/CN2004/000602



Applicant's or agent's file reference OP040034P	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/CN2004/000602	International filing date (day/month/year) 04.Jun.2004 (04.06.2004)	Priority date (day/month/year) 12.Mar.2004 (12.03.2004)
International Patent Classification (IPC) or national classification and IPC C07C65/32 C07C51/00 A61K31/19 A61P9/10		
Applicant TEAMACADEMY OF PHARMACEUTICAL SCIENCE et. al.		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand 10. Oct.2005(10.10.2005)	Date of completion of this report 16.Jun.2006(16.06.2006)	
Name and mailing address of the IPEA/CN The State Intellectual Property Office, the P.R.China, 6 Xitucheng Rd., Jimen Bridge, Haidian District, Beijing, China 100088 Facsimile No. 86-10-62019451	Authorized officer Luo Ling  Telephone No. 86-10-62085605	

Box No. I Basis of the report1. With regard to the **language**, this report is based on:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rules 12.3(a) and 23.1(b))
- ☐ publication of the international application (Rule 12.4(a))
- ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

- ☒ the international application as originally filed/furnished
- ☐ the description:
- pages _____ as originally filed/furnished
- pages * _____ received by this Authority on _____
- pages * _____ received by this Authority on _____
- ☐ the claims:
- pages _____ as originally filed/furnished
- pages * _____ as amended (together with any statement) under Article 19
- pages * _____ received by this Authority on _____
- pages * _____ received by this Authority on _____
- ☐ the drawings:
- pages _____ as originally filed/furnished
- pages * _____ received by this Authority on _____
- pages * _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement:

Novelty (N)	Claims 1-10	YES
	Claims	NO
Inventive step (IS)	Claims 1-10	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-10	YES
	Claims	NO

2. Citations and explanations (Rule 70.7)

D1:CN,A,1382682 (CHINESE ACAD MEDICAL SCI)04.Dec.2002 (04.12.2002)

D2:JP,A,1199958 (TSUMURA & CO) 11.Aug.1989 (11.08.1989)

D3:JP,A,55098169 (ISHIKAWA M) 25.Jul.1980 (25.07.1980)

D1 discloses new 2-(α -hydroxypentyl) benzoates (I), their preparation methods, the pharmaceutical compositions containing the same, and their uses in preparing the medicine for preventing and/or treating cardioischemia, cerebroischemia and cardiac or cerebral arterial embolism.

D2 discloses new phthalide derivs. (I) and their preparation methods, where Prodn. of phthalide derivs. (I) comprises reducing cpd. II with an asymmetric reducing agent.

D3 discloses the preparation method of 2-Aryl-1-phthalazone derivs., comprises treating 3-hydroxyphthalide deriv. of formula (II) with hydrazine deriv. of formula (III), and opt. subjecting resultant prod. to esterification, redn. or diazotation.

The present claims 1-10 relate to novel compounds 2-(α -n-pentanonyl) benzoates, their preparations and uses.

None of D1-D3 discloses all the technical features in claims 1-10. Thus, claims 1-10 have novelty under PCT Article 33(2).

The compounds 2-(α -n-pentanonyl) benzoates according to the present invention comprise keto. They are used for preventing and/or treating cardioischemia, cerebroischemia and cardiac or cerebral arterial embolism. Compared with D1-D3, the present invention isn't obvious for the skilled person in the art. Thus, claims 1-10 have inventive step under PCT Article 33(3).

Claims 1-10 have industrial applicability under PCT Article 33(4).